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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: DeMeyer et al.
Serial Number: 09 / 581,040
Filed: September 11, 2000
For: **TEXTILE REINFORCING LAYER FOR FLEXIBLE HOSES,
TUBES, AND SIMILAR EXTENDED OBJECTS**
Group Art Unit: 1771
Examiner: Norca Liz Torres Velazquez

BRIEF ON APPEAL UNDER 37 CFR 1.192

Mail Stop Appeal Brief – Patents
Commissioner for Patent
Post Office Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed July 12, 2004, from the Final Office Action dated February 10, 2004.

I. REAL PARTY IN INTEREST

The above-referenced application is the subject of an assignment to Milliken Europe NV, located at 24 Ham, 900 Gent, Belgium, which is the real party in interest.

II. RELATED APPEALS & INTERFERENCES

Appellant is not aware of any other appeal of interference that will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 42-45 have been finally rejected and are the subject of this Appeal.

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IV. STATUS OF AMENDMENTS

An amendment was made to the Claims after the Final Office Action. The Examiner entered the Amendment, which cancelled previously withdrawn Claims 46-49.

The currently pending Claims are presented as follows for reference.

42. An extended textile reinforcement layer for hoses, tubes, and similar extended objects, characterized in that said textile reinforcement layer comprises a stiffening selected from the group consisting of individual threads, individual yarns, and a textile product, said stiffening forming a textile bond with the reinforcement layer, said stiffening at normal temperatures will act as a stiffener of the reinforcement layer in a direction different from the longitudinal axis of said textile reinforcement layer to be stiffened, particularly in a substantially perpendicular direction to the longitudinal axis of said hose, tube, or similar extended object to be reinforced, and wherein said stiffening material has a first melting point which is lower than a second melting point of the reinforcement layer.
43. The extended textile reinforcement layer of claim 42, wherein said stiffening consists of individual threads or yarns.
44. The extended textile reinforcement layer of claim 42, wherein said stiffening consists of a textile product.
45. The extended textile reinforcement layer of claim 44, wherein said textile product is selected from the group consisting of a fabric, knitted fabric, knit, double knit, and a fleece.

V. SUMMARY OF THE INVENTION

The subject application is directed to a textile reinforcement layer for hoses, tubes, and other extended objects, characterized in that the textile reinforcement layer comprises a stiffening element that is bonded thereto. The stiffening element, which is one of individual threads, individual yarns, or a textile product, possesses a lower melting point than that of the reinforcement layer.

VI. ISSUES

At issue in the present Appeal is whether Claims 42-45 are properly rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Plontges et al. (US Patent 4,857,379).

VII. GROUPING OF CLAIMS

Appellant respectfully submits that all of the Claims stand or fall together.

VIII. ARGUMENT

The Office has rejected Claims 42-45 under 35 USC 102(b) as being anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Plontges et al. (US Patent 4,857,379).

The position of the Office is essentially as follows:

Plontges et al. disclose a sheet-like structure of fibers useful as a reinforcement. The fabric incorporates plastic yarns in the warp and the weft direction. The yarns consist of a material, e.g. polyester or polyolefin, which shrinks under the impact of a temperature below the melting point of the material. After the impact of the heat and the consequent shrinking, the material reassumes its original firmness. The reference teaches constructions in which the warp and weft threads are interwoven with each other, and also a construction that includes a knitted fabric construction with a bonding chain holding together two layers of threads. The reference further teaches the threads, which soften under the action of heat, provide a good bond with the applied plastics material.

Plontges et al. further teaches that in a tubular construction the structure has high-tenacity inextendible threads extending in the longitudinal direction of the tube, if the component is to be loaded in the direction of its length, while the threads that are extensible under deformation conditions run in the transverse direction. The reverse construction is also possible, for example, for a tube that is loaded by internal pressure.

The reference discloses a reinforcement layer in the form of a woven or knitted fabric that includes a stiffening material in the form of first threads with a lower melting point than second threads. In the alternative, the reference teaches an embodiment that includes a laid fabric of two superimposed layers of threads or yarns that read on the stiffening textile product of the present application, and a knitted fabric that reads on the reinforcement layer. In the preferred values for the threads of the reference, the table shows that the bonding chain is made of polyester yarns with a melting point higher than the polyolefin PP threads.

Although Plontges et al. do not explicitly teach the claimed stiffening property, it is reasonable to presume that the stiffening is inherent to the reinforcement material of Plontges. Support for said presumption is found in the use of like materials (i.e., a sheet-like structure of fibers with threads of material that is responsive to changes in temperature by increasing or decreasing its strength). In addition, the presently claimed property of stiffening would obviously have been present once the Plontges product was provided.

As a preliminary matter, Appellants wish to note that, for examining purposes, the claimed stiffening is considered as a first element that forms a textile bond with the reinforcement layer (a second element) to form the overall claimed textile reinforcement layer. Thus, for examining purposes, the prior art much teach or suggest a textile reinforcement layer that has both a stiffening as well as a reinforcement layer.

As described above, the sole piece of art used to support the outstanding anticipation and obviousness rejections is US Patent 4,857,379 to Plontges et al. However, the Plontges et al. reference fails to teach or suggest the combination of a stiffening plus a reinforcement layer. Specifically, only one layer is disclosed.

In order to support an anticipation rejection under 35 USC 102(b), all elements of a claim must be disclosed. From Appellant's reading of the '379 patent, Plontges et al. does not teach (a) that the textile reinforcement layer comprises a stiffening selected from the group consisting of individual threads, individual yarns, and a textile product; (b) that the stiffening forms a textile bond with a reinforcement layer; (c) that the stiffening at normal temperatures will act as a stiffener of the reinforcement layer in a direction different from the longitudinal axis of the textile reinforcement layer to be stiffened, and particularly in a substantially perpendicular direction to the longitudinal axis of the hose, tube, or similar extended object to be reinforced; and (d) that the stiffening material has a first melting point which is lower than a second melting point of the reinforcement layer.

Because Plontges et al. fails to teach all of the elements of Appellants' claim, it is respectfully submitted that such art cannot be used to establish a proper rejection on the basis of anticipation. Accordingly, it is requested that the outstanding rejection be withdrawn.

Likewise, in order to support an obviousness rejection under 35 USC 103(a), all elements of a claim must be disclosed. (MPEP 2143.03) As described above, Plontges et al. do not disclose all of the limitations found in Appellant's claims.

Because Plontges et al. fails to teach all of the elements of Appellants' claim, it is respectfully submitted that such art cannot be used to establish a proper rejection on the basis of obviousness. Accordingly, it is requested that the outstanding rejection be withdrawn.

IX. CONCLUSION

For the reasons set forth above, Appellant respectfully urges that the rejections of Claims 42-45 are improper. Reversal of all rejections discussed in this Appeal is hereby requested.


The Commissioner is hereby authorized to deduct the Appeal Brief fee of \$330 from Deposit Account No. 04-0500. The Commissioner is also authorized to charge any additional fees that may be required to Deposit Account No. 04-0500.

This Appeal Brief is being submitted in triplicate.

Date: September 13, 2004

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Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, Post Office Box 1450, Alexandria, VA 22313-1450, on September 13, 2004, along with a Post Card Receipt.


Charlotte C. Wilson, Agent for Appellants